IN THE CLAIMS:

What is claimed is:

1-11. (Cancelled)

12. (Currently amended) An apparatus monitoring HVAC control functions, comprising:

a microcontroller;

a digital temperature sensor coupled to the microcontroller;

a ~~liquid crystal~~ display coupled to the microcontroller;

a set of cursor buttons coupled to the microcontroller;

a first data structure of personal identification numbers coupled to the microcontroller;

a second data structure of historical system usage data coupled to the ~~microprocessor~~ microcontroller;

an upload capable connector coupled to the ~~microprocessor~~ microcontroller and to the first data structure;

a billing computer coupled to the second data structure;

a real time clock coupled to the microcontroller; and

a back up power supply coupled to the real time clock, wherein users associated with personal identification numbers of the first data structure are billed for HVAC as a function of historical system usage data of the second data structure.

13. (Cancelled)

14. (Previously presented) The apparatus of claim 12, wherein the first data structure includes a member selected from the group consisting of singly linked lists, hashes, arrays, sorted arrays, binary trees, stacks, heaps, queues, dequeues, doubly linked lists, tables, and circular linked lists.

15.   (Previously presented)   The apparatus of claim 12, wherein the second data structure includes a list of time entries, each time entry associated with a personal identification number.

16.   (Original)   The apparatus of claim 15, wherein the second data structure includes a member selected from the group consisting of singly linked lists, hashes, arrays, sorted arrays, binary trees, stacks, heaps, queues, dequeues, doubly linked lists, tables, and circular linked lists.

17.   (Currently amended) The apparatus of claim 15, wherein the second data structure includes a ~~third data structure, the third data structure including~~ a calendar.

18.   (Currently amended) The apparatus of claim 17, wherein the ~~third~~ second data structure includes a member selected from the group consisting of singly linked lists, hashes, tables, arrays, sorted arrays, binary trees, stacks, heaps, queues, dequeues, doubly linked lists, and circular linked lists.

19.   (Currently amended) The apparatus of claim 17, wherein second data structure includes a ~~fourth data structure, the fourth data structure including~~ a list of user types.

20.   (Currently amended) The apparatus of claim 19, wherein the ~~fourth~~ second data structure includes a member selected from the group consisting of singly linked lists, hashes, arrays, sorted arrays, binary trees, stacks, heaps, queues, dequeues, doubly linked lists, tables, and circular linked lists.

21.   (Previously presented)   The apparatus of claim 12, further comprising a wireless interface coupled to the first data structure.

22.   (Original)   The apparatus of claim 21, further comprising a transceiver coupled to the wireless interface.

23.   (Original)   The apparatus of claim 22, further comprising a repeater coupled to the transceiver.

24.   (Previously presented)   The apparatus of claim 12, further comprising a serial interface, coupled to the first data structure.

25.   (Original)   The apparatus of claim 24, further comprising a hand held personal data assistant coupled to the serial interface.

26.   (Previously presented)   The apparatus of claim 12, further comprising an auxiliary memory coupled to the microcontroller and the first data structure.

27.   (Original)   The apparatus of claim 12, further comprising heating ventilation and air conditioning equipment coupled to the microcontroller.

28-30.   (Cancelled)

31.   (Previously presented)   The apparatus of claim 12, wherein the billing computer is a central billing computer.

32.   (Previously presented)   The apparatus of claim 12, further comprising a plurality of relays coupled to the ~~microprocessor~~ microcontroller.

33.   (Previously presented)   The apparatus of claim 12, further comprising a bus coupled to the first data structure and the ~~microprocessor~~ microcontroller.